





LIBRARY
OF THE
MASSACHUSETTS INSTITUTE
OF TECHNOLOGY

HD28
m414

(no 873 not used)

A STRUCTURE FOR COOPERATIVE PROBLEM SOLVING IN
BARGAINING BETWEEN UNION AND MANAGEMENT*

James W. Driscoll**

WP 869-76 .

August 4, 1976

A STRUCTURE FOR COOPERATIVE PROBLEM SOLVING IN
BARGAINING BETWEEN UNION AND MANAGEMENT*

James W. Driscoll**

WP 869-76

August 4, 1976

*The author acknowledges the assistance of David A. Nadler, of Columbia University, who provided access to the case materials described in this paper. The project activities described in the case were conducted under contract HRA 230-7500179 with the National Center for Health Systems Research, U.S. Department of Health, Education, & Welfare.

**Assistant Professor of Industrial Relations, Alfred P. Sloan School of Management, Massachusetts Institute of Technology, Cambridge, Massachusetts

Weinburg (1976) has described some recent initiatives on a subject reminiscent of American industrial relations in the 1940's, namely union-management cooperation (Golden and Parker, 1955). Conceptually, union-management cooperation is integrative collective bargaining, defined by Walton and McKersie (1965) as the "system of activities [by negotiators] instrumental to the attainment of objectives which are not in conflict with those of the other party and which therefore can be integrated to some degree" (p. 5). Collective bargaining also includes distributive bargaining, defined as a system of activities to resolve conflicts of interests between parties (p. 4). According to Walton and McKersie the individual orientations and group patterns of communication and decision making which facilitate distributive bargaining interfere with effective integrative bargaining.

Preliminary reports of these initiatives in union-management cooperation provide an opportunity to examine an extension of the Walton and McKersie theory of collective bargaining. A single collective bargaining system may reconcile the contradictory conditions facilitating integrative or distributive bargaining based on an interesting set of findings by Lawrence and Lorsch in their study of manufacturing firms (1969). In effective firms, both individual orientations and the degree of formality in departments varied to meet the demands of different departmental tasks. This finding is often referred to as the differentiation hypothesis. In much the same way, both union and management might form specialized groups for the task of integrative bargaining in addition to existing structures designed for effective distributive bargaining.

The purpose of this paper is (1) to propose an interorganizational structure based on the Lawrence and Lorsch differentiation hypothesis and

734833

intended to facilitate integrative bargaining between union and management and (2) to explore that structure and some of its implications by focusing on a case study. Since Walton and McKersie's theory of collective bargaining refers both to interpersonal and interorganizational activities, its application requires detailed examination of the behavior of organizational representatives. The present study relies on direct observation of union and management representatives in a series of meetings aimed at integrative bargaining.

Cooperative Problem Solving

Because Walton and McKersie do not distinguish between integrative bargaining as a behavioral process and the substantive issues appropriate to it, the term cooperative problem solving is used here to denote only the behavioral process of integrative bargaining. This behavioral process involves both parties attempting to identify problems where their interests coincide, searching for alternative solutions, ordering these alternatives, and selecting preferred course of action.

Cooperative problem solving may refer to any substantive issue. Walton and McKersie (1965:129) implied that economic issues are not likely topics for such problem solving because the benefits to one party are costs to the other. However, under the Scanlon Plan, union leaders and members have successfully engaged in cooperative problem solving over economic topics (Frost, et. al., 1974). In addition, recent contract settlements in the steel and airlines industries have included no-strike pledges by the unions in return for the arbitration of economic as well as other issues. For these reasons, this paper simply defines cooperative problem solving as a

behavioral process and treats its topics for discussion as an open and empirical question.

As noted above, Walton and McKersie have hypothesized that cooperative problem solving is facilitated by certain individual orientations, communication and decision making patterns. Group problem solving is expected to proceed most effectively when individuals are both motivated to solve a common problem and trust other group members (Walton and McKersie, 1965; Zand, 1972). In addition, problems in collective bargaining often require innovative solutions. For the generation of such innovative solutions, effective problem solving is hypothesized to require communication among all members in decision making and the sharing of relevant information (Walton and McKersie, 1965; Shull, Delbeq, and Cummings, 1970).

As Walton and McKersie have noted, however, these orientations and communication practices do not benefit the respective parties when their objectives conflict. Trusting the other party, sharing information, and allowing unrestricted participation in discussion add to the power of the opposing party. The traditional tactics of distributive bargaining recognize this vulnerability and control both communication patterns and information sharing. These bargaining tactics reflect individual and collective distrust of the other party. However, they impede effective cooperative problem solving.

How are union leaders and managers to cope with the conflicting demands of these two processes? Walton and McKersie implied that the parties will adopt overall orientations and patterns of communication and decision which compromise these demands rather than shifting between two extremes (pp. 166-167). Several case histories of collective bargaining relationships have also described bargaining relationships in average or modal terms

(Golden and Parker, 1955; Derber, Chalmers, and Edelman, 1965). Rather than relying on a single behavioral process in dealing with the other party, either the union or the management or both may develop specialized structures to engage in cooperative problem solving. Such specialization corresponds to the specialized orientation and organization of particular departments observed by Lawrence and Lorsch in manufacturing firms facing a variety of task demands from their environment (1969). Extending their analysis to union-management relationship suggests the following hypothesis:

Both union and management can facilitate cooperative problem solving by differentiating structures for problem solving from groups engaged in other collective bargaining activities.

An operational definition of differentiation can be developed from the customary activities connecting a union and management; those activities include contract negotiation, contract administration, and consultation. Most frequently, contract negotiations and the resolution of grievances in contract administration can be assumed to require distributive bargaining from their participants, i.e. union officers, committee members, stewards, business agents and the industrial relations staff within management. Therefore, a structure specializing in cooperative problem solving would systematically exclude individuals who routinely handle those distributive activities. Such a structure might involve either a formal group or occasional meetings.

The differentiation hypothesis predicts that such groups would engage in more cooperative problem solving regardless of the issues they discuss. Certainly such a specialized structure poses problems of coordination and control both to the union and the management. While this paper focuses on the facilitation of cooperative problem solving, these issues as

well as the relative importance of such a process are treated briefly in the discussion section after a review of some empirical results.

Review of Recent Initiatives in Union-Management Cooperation

Existing descriptions of union-management cooperation have limited usefulness as tests of this hypothesis. Such descriptions are largely anecdotal and lack sufficient detail to determine the extent of cooperative problem solving. As defined above, cooperative problem solving is a behavioral process; therefore neither the issues discussed (where interests may overlap, e.g. increasing employment levels) nor the fact of ultimate agreement between the parties requires the existence of cooperative problem solving. Both may and often have resulted from distributive bargaining.

Based on the existing descriptions of recent initiatives in union-management cooperation, Table 1 summarizes the extent of structural differentiation in several cases (Column 5) and assesses the extent of cooperative problem solving (Column 6). The preliminary descriptions provide general support for the differentiation hypothesis: High levels of cooperative problem solving were reported in the only two cases with some structures excluding both union officials and management industrial relations specialists from the problem-solving groups. These differentiated structures appeared under the Scanlon Plan and in the National Quality of Work Center's project at the Tennessee Valley Authority.¹ None of the other Quality of Work Committees nor the Employment and Security Committees in the steel industry included

1. The National Quality of Work Center (NQWC) is a non-profit organization affiliated with the University of Michigan, whose aim is the creation of joint labor-management efforts to improve the quality of working life.

TABLE 1: THE EXTENT OF STRUCTURAL DIFFERENTIATION AND COOPERATIVE

PROBLEM SOLVING IN SELECTED CASES OF UNION-MANAGEMENT COOPERATION

<u>Designation</u>	<u>Industry</u>	<u>Union Involved</u>	<u>Scope</u>	<u>5.</u>	<u>6.</u>	<u>7.</u>
Russian Relations Committee	Steel	United Steelworkers	Industry-wide	Structural Differentiation ^a Union/Management/Example	Cooperative Problem Solving ^b Extent/Example	Reference
Employment Security & Productivity Committee	Steel	United Steelworkers	Plant-level	Low/Low/Subcommittees of technical experts	High/Off-the-record discussions, no time limit for decisions	Orr (1973)
Scazon Plea	Many	Company or Plant(s)	Company	High/High/Production committees include specially elected worker representatives & line managers	High/Widespread participation in discussions	Frost, Wakeley, & Ruh (1974)
Quality of Work Committee (1)	Rushtcoa Coal Mine	United Mine Workers	Company	Moderate/7/Two union officials on low-level committee	7/Grievances also resolved by committee	Recent Initiatives; The First Eighteen Months
Quality of Work Committee (2)	Harmon International (automotive parts)	United Auto Workers	Plant	Moderate/7/Stewards on low-level committee	7	The First Eighteen Months
Quality of Work Committee (3)	Tennessee Valley Authority	Tennessee Valley Engineers Association; Office & Professional Employees International	Plant	High/High/Low-level committee elected by workers	High/Workshop to identify division problems	Recent Initiatives; The First Eighteen Months
Eaton, Inc.	Manufacturing	United Auto Workers	Plant	Moderate/7/Union representatives on low-level committee	7/Top committee makes decisions by consensus	Recent Initiatives; The First Eighteen Months
Federal Mediation & Conciliation Service: Relationships by Objectives Program	Many	Many	Varies	Low/Low	7	Recent Initiatives; The First Eighteen Months

a. Structural differentiation was coded as follows: for the union, if all members of some cooperative structure are specially elected by the workers, high; if all structures are composed of union officials, low; if all structures have at least some union officials, moderate; for the management, if some structure has only line managers, high; if all structures are composed of industrial relations staff, low; if all structures have industrial relations staff as members, moderate.

b. Cooperative problem solving was coded from the brief descriptions available based on the breadth of participation among individuals in the specialised group, the range of information shared and topics discussed, and the reliance on consensus to make decisions (Schein, 1969).

such an exclusive structure. The anecdotal literature also includes examples where less differentiated structures have experienced greater difficulty in maintaining cooperative problem solving. The only exception to the association between high differentiation and cooperative problem solving occurred in the Human Relations Committee in the steel industry. The union technical experts serving on subcommittees in that case may well be more free of pressures towards distributive bargaining than "line" union officials. Thus, a set of existing cases of union-management cooperation support the general differentiation hypothesis.

The general differentiation hypothesis rests on Lawrence and Lorsch's theory of organizational design and on Walton and McKersie's propositions that effective cooperative problem solving (integrative bargaining) and distributive bargaining require different orientations and behaviors from the individuals participating in these processes. The same propositions also imply other effects on individuals involved in a specific case of union-management cooperation. In order to illustrate these hypothesized effects, this paper relies on an intensive analysis of one case of union-management cooperation.

Hypotheses

Prior to examining the case, three hypotheses were derived from the two theoretical analyses just mentioned:

1. Where a specialized structure for cooperative problem solving exists, its participants will engage in more cooperative behavior over time because such behavior is facilitated by excluding individuals drawn from distributive bargaining activities. (In cooperative problem solving, participants develop orientations of trust in the group, communicate openly, and decide issues by consensus.);

2. When an individual from a distributive position in either the union or management engages in cooperative problem solving, the individual will receive pressure from his or her constituency to rely on behavior appropriate to distributive bargaining;
3. In order to cope with this pressure, the individual will withdraw from the structures involving cooperative problem solving.

In order to test either these specific hypotheses or the general differentiation hypothesis requires a detailed longitudinal description of the interpersonal behavior of representatives from the union and the management. This level of detail is required because:

1. these hypotheses refer specifically to the behavior of these representatives, not to the entire relationship between the union and management;
2. these hypotheses refer to the orientations, communications, and decision making between these representatives: e.g. who communicates with whom, what information is shared, and what language used, and not to the issues discussed; and
3. these hypotheses refer to the structure's facilitative effects on cooperative problem solving over time.

Methodology

In order to explore these hypotheses, this study examines an intensive description of the meetings of a union-management committee charged with establishing an experimental program to improve the quality of working life in a large, voluntary hospital located in an urban area in the Northeast. The case description is part of a larger research project and only the information relevant to these hypotheses is presented here. The joint committee included members of the hospital administration, an attending physician, and representatives of the three employee associations covered by collective bargaining agreements at the time of the case: one association

of the residents and interns, another association for nurses, and a union as the association for other direct care and support workers such as nursing aides, housekeeping staff, and dietary staff. Each association was affiliated with larger organizations: city and state associations for the resident staff and nurses respectively and an international union for the other hospital workers.

The quality of work life program was initiated by the National Quality of Work Center (NQWC) as an experiment to improve both the satisfaction derived by workers from their jobs and the performance of the work organization. This program received funding from the Department of Health, Education, and Welfare to support the efforts of an outside consultant towards these objectives and also to support an independent assessment of the program's effects. Originally, the Center suggested the program to the international union representing the hospital workers. At the instigation of that union, the three employee associations met with the hospital's administration and agreed to participate in this program. This case history describes the meetings held by a union-management committee designated by the administration and these three employee associations: (1) to identify a unit within the hospital for the experimental program and (2) to select a consultant to undertake the program. Besides representatives of the hospital administration and the employee associations, these meetings typically included a representative from NQWC and a member of the university-affiliated team assessing the effectiveness of the program.

The raw data for this study consisted of a diary maintained by the independent program-assessment team. At least one member of this team described each meeting of the union-management committee. The content of

this diary varied over time. Some entries described the frequency and direction of communication among the members of the committee. All entries listed the meeting's participants, an assessment of its climate, particular problems discussed by the committee, and specific comments made by committee members. In order to explore the hypotheses enumerated above, this report focused on behavior in this committee by the representative of the international union of hospital workers. He was a full-time, paid member of the international union staff responsible for supporting the local representing this hospital. He was selected for attention in this report because the international union is more typical of collective-bargaining agents than the "quasi-unions" representing the doctors and nurses. The diary entries were examined with these hypotheses in mind for evidence supporting or modifying their substance.

This data is admittedly rough but suited to the exploratory nature of the topic.

Results

The international staff representative moved through three stages in his involvement with the Committee during the 10 months and 19 meetings covered by this report:

Initially, he participated actively in Committee discussions and moved from an orientation of suspicion to trust in the Committee members. For example, at the outset, he raised concerns about the number of administration representatives on the Committee because a number of administrators had shown up unexpectedly at the first meeting of this designated Committee. After nine meetings, however, he dropped this concern and indicated that unequal representation was no problem, "I trust everyone."

Indeed, he became the focal member of the Committee, ranking first in frequency of participation in half the meetings. Under the Committee's rule of rotating responsibility for its direction, he chaired the first Committee interview with a prospective consultant for the program. After this high point of involvement, he referred to the Committee as "my baby."

Because of the group's slow development in accomplishing its tasks, the independent assessment team proposed the use of a process consultant to assist the group (Schein, 1969). With the assistance of that consultant the group continued to work on its assigned tasks.

After about 5 months of meetings, external events increased pressure on the union representative from his constituency concerning his participation in the Committee. A new hospital director took office and initiated a separate program to increase productivity. At the same time, the municipal government providing support to the hospital experienced a financial crisis which threatened both the hospital and the union. Both developments made cooperation with management unpopular politically. At this point, the international representative missed two consecutive Committee meetings. The comments of other Committee members during those meetings described him as personally threatened by his involvement in the Committee with its heavy management and professional membership and by the possibility of imposed productivity changes. Both the President and a Vice President of the international union were described in the meetings as skeptical about participation in the Committee. As the representative commented on his return, after missing these meetings, "I can't hobnob for an hour a week and then face you as the opposition if necessary."

The union representative did return to participate in the Committee's meeting, but over the course of the next two meetings he specified his role more carefully. He repeated his willingness to work with the Committee and offered to clarify with his union the difference between the quality-of-work program and any unrelated productivity changes. However, he stipulated for the first time that this committee's proposals were not final, presumably reserving that decision to the union. Finally, he stated that he would be unable to attend the Committee's meetings in the future; he would send an assistant in his stead. With the union representatives active participation, the Committee completed two major tasks during this 10 month period: selecting a ward for the quality-of-work program and retaining a consultant to initiate the program.

Conclusion

Three hypotheses in this study elaborated upon the general differentiation hypothesis of Lawrence and Lorsch as applied to collective bargaining: namely that a union-management group separated from distributive bargaining activities will engage in more cooperative problem solving. The first hypothesis specified the effects of such a differentiated structure; the second hypothesis predicted pressure on participants in an undifferentiated structure who engage in cooperative problem solving; and the third hypothesis identified one means of reducing that pressure, namely withdrawal. In an overall assessment of this case, the Committee, an undifferentiated structure, included a full-time union official and a personnel administrator from management. Nonetheless, the Committee successfully engaged in cooperative problem solving despite the tension experienced by participants

and threats of withdrawal. Thus the results provide mixed support for the general differentiation hypothesis.

Examining the results relevant to the first hypothesis suggests its modification: a committee devoted to issues of common union-management interest may engage in some cooperative problem solving despite the presence of participants accustomed to distributive bargaining. These participants may develop trust in representatives from the other side, communicate freely with them, and decide these issues by consensus. This case does provide evidence of the difficulty in achieving effective group problem solving and the usefulness of a process consultant in improving the groups operations. However, that difficulty is common to all problem-solving groups. Thus, establishing a union-management group to deal with common problems does not guarantee effective group problem solving, but such problem solving is possible even between representatives drawn from adversarial roles.

The second and third hypotheses identified potential problems for such undifferentiated groups. Their support in this study reaffirms the utility of more differentiated structures composed of specially elected union representatives and line managers rather than the industrial relations staff. In support of the second hypothesis, the union representative encountered two conflicting expectations. His constituents expected an adversarial stance, but an effective committee required trust, open communication, and consensual decisions. More specifically, committee membership required regular attendance in meetings with management representatives at the same time the union membership questioned any cooperation with management by its representatives. The union representative experienced conflict between these two roles (Katz and Kahn, 1966). In support of the third

hypothesis, the union representative reported considering withdrawal from the Committee, presumably as a means to resolve this role conflict. He missed two meetings when this conflict developed. Later, he also suggested his personal withdrawal from the Committee and replacement with a representative. These actions suggest the appeal of withdrawal as a means to cope with conflicting demands. However, the representative remained a participant in the meetings during and subsequent to the period analyzed; but, he returned to the Committee in a redefined role, more consistent with the demands of his constituents. Thus, while withdrawal remains a possible resolution for role conflict, an individual or organization may develop alternative procedures to cope with this conflict.

Discussion

The results for these last two hypotheses support the Walton and McKersie propositions that different conditions facilitate distributive bargaining and cooperative problem solving. One structure attempting both activities experienced problems when the requirements of the two were in conflict. One participant in the dual-purpose structure in this case experienced such role conflict.

A structure differentiated in its composition according to the Lawrence and Lorsch findings and devoted to cooperative problem solving remains a viable strategy to prevent role conflict and its potential disruptive consequences, such as withdrawal. Either the union or management in a relationship might propose such a differentiated structure.

That suggestion of a differentiated union-management structure rests on a normative assertion, namely that the union and management, the

two parties in a collective bargaining system, should have the capability of cooperative problem solving to assist in reaching accommodation. In cooperative problem solving, the parties may identify common problems and develop their innovative solutions for them (Blake, Shepard, and Mouton, 1964). However, there is little empirical support for this normative position. Therefore, research is required on the benefits of cooperative problem solving for the parties, their constituents (the union membership and the organization's owners), and the society. In the meantime, parties interested in experimenting with these benefits might well rely on differentiated structures to facilitate cooperative problem solving.

The parties must coordinate their involvement in such differentiated structures with their distributive bargaining activities: contract negotiation and administration. Galbraith (1973) has summarized how business organizations coordinate such differentiated activities. Examples of the coordinating techniques he discusses can be identified in existing cases of union-management cooperation as well. At the early developmental stages of a problem-solving committee, such as a quality-of-work committee, simple rules can coordinate the committee's activities with ongoing grievances and contract concerns (e.g., no contract or grievable topic will be addressed in committees). Most quality-of-work committees are established under such rules. The Scanlon Plan follows a similar pattern. As the committee develops and considers complex problems, such rules provide less protection. In the later stages of development, the hierarchy of offices within the two organizations can coordinate such actions. For example, in most Scanlon Plans, the local union president sits on the higher level committees to assure that no contract terms are compromised (Strauss and Sayles, 1957).

As an alternative use of the existing hierarchy, McGregor and Scanlon (1948) reported that a union-management committee on job evaluation only considered worker requests for job evaluations after the local union's executive board first cleared the request. Finally, both the union's leadership and the management's industrial-relations staff might develop more complicated coordinating systems involving goal setting for committee members or liaison roles between the committee and existing distributive activities. The international representative in the present case proposed such a liaison role as a substitute for his sitting on the Committee. In any event, the existence of a differentiated structure for cooperative problem solving poses problems for both union and management in coordinating such structures with their overall collective bargaining strategies.

The limited evidence reviewed above suggested that a differentiated group can facilitate cooperative problem solving, but this technique is neither a sufficient nor a necessary condition for a cooperative process. The National Planning Association cases (Golden and Parker, 1955) and Northrup and Young's (1968) review of the original presentations have identified a number of conditions favoring union-management cooperation: the attitude of top management towards the union, an organization's favorable economic position, and the history of peaceful relationships between the two parties. If several of these conditions are unfavorable, probably neither the positive attitudes emphasized by McGregor (1955) nor the structural change discussed here will lead to cooperative problem solving. In unfavorable economic conditions and conflict-ridden relationships, a differentiated structure might only provide one additional arena for distributive bargaining. Conversely, a neatly differentiated structure is not the only means to

cooperation. Some combination of leadership, experience, and skill may allow opposing negotiators to engage in cooperative problem solving without differentiation of structures (Walton and McKersie, 1965). An external crisis may also stimulate such a process. Thus, a differentiated structure for cooperative problem solving may facilitate the process; it neither guarantees nor defines such a process.

The adaption of differentiated structures may be critical in encouraging more cooperative problem solving in the particular industrial relations system in the United States. Labor unions in this country are especially well developed at the local-work-place level. Full-time local-union officials, detailed collective bargaining agreements including local supplements to national contracts and active local unions provide little room in an organized workforce for informal attempts at cooperative problem solving between managers and workers outside the scope of union control. Where local unions take such an active part in distributive bargaining with management a separate, formal structure for cooperative problem solving may be required in the already formalized collective bargaining system. For example, a differentiated group might reduce some of the pressure on union representatives described in this case.

This paper describes conceptually and investigates empirically a modification in the customary organization of union and management for collective bargaining. In the modification, a group of representatives from both sides specializes in cooperative problem solving and plays no role in the traditional distributive bargaining activities (contract negotiations and administration, i.e. grievance handling). While the committee in this case did not specialize in cooperative problem solving, the pattern of

results here, under the Scanlon Plan and in the TVA quality-of-work project supports the viability of such specialized groups. Such a group should facilitate cooperative problem solving, a process with potential but largely untested value in addressing the problems of union and management.

REFERENCES

1. Blake, Robert R., Shepard, H.A. and Mouton, Jane. Managing Intergroup Conflict in Industry. Houston, Texas: Gulf, 1964.
2. Derber, Milton, W.E. Chalmers, and Milton T. Edelman. Plant Union-Management Relations: From Practice to Theory. Urbana: University of Illinois Press, 1965.
3. The First Eighteen Months: A Report. National Quality of Work Center and the Institute for Social Research, University of Michigan, Ann Arbor, Michigan.
4. Frost, Carl F., Wakeley, John H., Ruh, Robert A. The Scanlon Plan for Organizational Development: Identity, Participation, Equity. Lansing, Michigan: Michigan State University, 1974.
5. Galbraith, Jay. Designing Complex Organizations. Reading, Mass.: Addison-Wesley, 1973.
6. Golden, Clinton S. and Virginia D. Parker (eds.). Causes of Industrial Peace Under Collective Bargaining. New York: Harper, 1955.
7. Katz, Daniel and Kahn, Robert L. The Social Psychology of Organizations. New York: Wiley, 1966.
8. Lawrence, Paul R. and Lorsch, Jay W. Organization and Environment: Managing Differentiation and Integration. Homewood, Illinois: Irwin, 1969.
9. McGregor, Douglas, "The influence of attitudes and policies," Causes of Industrial Peace Under Collective Bargaining, pp. 29-28. Clinton S. Golden and Virginia D. Parker (eds.). New York: Harper, 1955.
10. McGregor, Douglas and Scanlon, Joseph N. The Dewey and Almy Chemical Company and the International Chemical Workers' Union. Washington, D.C.: National Planning Association, 1948.
11. Northrup, Herbert R. and Young, Harvey A. "The causes of industrial peace revisited," Industrial and Labor Relations Review, October 1968, 22(1) 31-47.
12. Orr, John A. "The rise and fall of steel's Human Relations Committee," Labor History (Winter) 1973, 14(1), 69-82.
13. Recent Initiatives in Labor-Management Cooperation. National Center for Productivity and Quality of Working Life, Washington, D.C., 20036, February, 1976.

14. Schein, Edgar H. Process Consultation: Its Role in Organizational Development. Reading, Mass.: Addison-Wesley, 1969.
15. Shull, Freemont A., Jr., Delbeq, Andre L., Cummings, L.L. Organizational Decision Making. New York: McGraw-Hill, 1970.
16. Strauss, George and Sayles, Leonard R. "The Scanlon Plan: Some Organizational Problems," Human Organization, 1957, Fall, 16, 15-22.
17. Walton, Richard E. and McKersie, Robert B. A Behavioral Theory of Labor Negotiations: An Analysis of a Social Interaction System, New York: McGraw-Hill, 1965.
18. Weinberg, Edgar. "Labor-Management Cooperation: A Report on Recent Initiatives," Monthly Review 1976, 99(4), 13-22.
19. Zand, Dale E., "Trust and managerial problem solving," Administrative Science Quarterly, 1972, 17(2), 229-239.



1. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ (The first fraction is $\frac{1}{2}$, the second is $\frac{1}{2}$, and their product is $\frac{1}{4}$.)
2. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ (The first fraction is $\frac{1}{2}$, the second is $\frac{1}{2}$, and their product is $\frac{1}{4}$.)
3. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ (The first fraction is $\frac{1}{2}$, the second is $\frac{1}{2}$, and their product is $\frac{1}{4}$.)
4. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ (The first fraction is $\frac{1}{2}$, the second is $\frac{1}{2}$, and their product is $\frac{1}{4}$.)
5. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ (The first fraction is $\frac{1}{2}$, the second is $\frac{1}{2}$, and their product is $\frac{1}{4}$.)
6. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ (The first fraction is $\frac{1}{2}$, the second is $\frac{1}{2}$, and their product is $\frac{1}{4}$.)
7. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ (The first fraction is $\frac{1}{2}$, the second is $\frac{1}{2}$, and their product is $\frac{1}{4}$.)
8. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ (The first fraction is $\frac{1}{2}$, the second is $\frac{1}{2}$, and their product is $\frac{1}{4}$.)
9. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ (The first fraction is $\frac{1}{2}$, the second is $\frac{1}{2}$, and their product is $\frac{1}{4}$.)
10. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ (The first fraction is $\frac{1}{2}$, the second is $\frac{1}{2}$, and their product is $\frac{1}{4}$.)

Date Due

1		
2	2.05	
3		
4	23.05	
5	21.05	
6	SEP 6 1985	
7	13.05	
8	JAN 13 1986	
9	APR 13 1986	
10	JUN 23 1986	

L113-26-67

10

HD28.M414 no.860- 76
Lorange, Peter/A framework for the use
727647 D*BKS 00048058



3 9080 000 990 298

✓ T-J5 143 w no.861- 76
Choffray, Jean/Models of the multipers
728124 D*BKS 00027768



3 9080 000 748 019

T-J5 143 w no.862- 76
Lindquist, Mat/Dynamic modeling of inf
728126 D*BKS 00027767



3 9080 000 747 995

T-J5 143 w no.863- 76
Kalwani, Manoh/Estimating the proporti
728129 D*BKS 00027777



3 9080 000 748 258

HD28.M414 no.864- 76
Plovnick, Mark/A management developmen
728132 D*BKS 00027778



3 9080 000 748 266

T-J5 143 w no.865- 76
Von Hippel, Er/Has a customer already
728134 D*BKS 00027776



3 9080 000 748 225

HD28.M414 no.866- 76
Rubin, Irwin M/Improving teamwork in h
728139 D*BKS 00027779



3 9080 000 748 308

T-J5 143 w no.867- 76
Driscoll, Jame/Organizational trust an
728224 D*BKS 00027775



3 9080 000 748 183

HD28.M414 no.868-76
Donovan, John /Database system approac
728226 D*BKS 00028911



3 9080 000 761 897

HD28.M414 no.869- 76
Driscoll, Jame/A structure for coopera
734833 D*BKS 00054867



3 9080 001 068 490

